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Howard D. Markus, Ph.D., P.E.  
651.757.2551  
Research Scientist 3/Aquatic Ecologist  
MN Pollution Control Agency  
e-mail: [howard.markus@state.mn.us](mailto:howard.markus@state.mn.us)

**Re: Minnesota's Draft 2012 303(d) List of Impaired Waters**

Dear Dr. Markus,

Please accept these comments submitted on behalf of the Center for Biological Diversity ("the Center"). The Center is a non-profit conservation organization that works through science, law and creative media to secure a future for all species, great or small, hovering on the brink of extinction. The Center has approximately 320,000 members and online activists, including hundreds of members in the state of Minnesota, and an office in Duluth.

**The Clean Water Act**

The objective of the Clean Water Act ("CWA") is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA set national goals that the discharge of pollutants into navigable waters be eliminated by 1985, and that "wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983." *Id.*

The CWA requires states to establish water quality standards, and to submit these water quality standards to EPA for approval. See 33 U.S.C. § 1313. A water quality standard consists of the "designated uses" for the water, and the criteria determined to be necessary to protect the designated uses. 33 U.S.C. § 1313(c); 40 C.F.R. § 130.3. The classification of the waters must take into account the use and value of the water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. 40 C.F.R. § 131.10(a). The criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated uses. 40 C.F.R. § 131.11(a). Additionally, in designating uses and the appropriate criteria for those uses, states must taking into consideration the water quality standards of downstream waters, and insure that its water quality standards will provide for the attainment of the water quality standards of downstream waters. 40 C.F.R. § 131.10(b).

States must review their water quality standards at least once every three years, and modify and adopt new standards as appropriate. 33 U.S.C. § 1313(c); 40 C.F.R. § 131.20(a). The state must hold public hearings for the purpose of reviewing the water quality standards. 33 U.S.C. § 1313(c)(1); 40 C.F.R. § 131.20(b).

Whenever the state revises or adopts a new standard, such revised or new standard must be submitted to EPA. 33 U.S.C. § 1313(c); 40 C.F.R. § 131.20(c). Water quality standards submitted to EPA for review must include use designations that are consistent with the CWA, the methods used and analyses conducted to support the water quality standards, water quality criteria sufficient to protect the designated uses, an antidegradation policy that is consistent with the CWA, and certification from the state that the water quality standards were duly adopted pursuant to state law. 40 C.F.R. § 131.6. If the EPA Administrator determines that such standard meets the requirements of the CWA, such standard shall thereafter be the water quality standard for the applicable waters of the state. 33 U.S.C. § 1313(c)(3). If, however, the EPA Administrator determines that any such standard is not consistent with the CWA, EPA must notify the state and specify the changes to meet such requirements. *Id.*

A state water quality standard remains the applicable water quality standard until EPA approves a change, deletion, or addition to that standard, or until EPA promulgates a more stringent water quality standard. 40 C.F.R. § 131.21(e).

States must establish appropriate monitoring methods and procedures as deemed necessary to compile and analyze data on the quality of waters in the state, and to the extent practicable ground-water. 40 C.F.R. § 130.4. The state's water monitoring program must include collection and analysis of physical, chemical, and biological data and quality assurance and control programs to assure scientifically valid data. *Id.*

Section 303(d) of the CWA requires each state to identify those waters for which effluent limitations and other pollution control requirements are not stringent enough to implement any water quality standard applicable to such waters. 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7(b). Each state must assemble and evaluate all existing and readily available water quality related data and information in developing its list of water quality limited waters. 40 C.F.R. § 130.7(b)(5). At a minimum, states must consider and evaluate the waters identified by the state in its 305(b) report as partially meeting or not meeting designated uses, waters where dilution calculations or predictive models indicate nonattainment of applicable water quality standards, waters for which water quality problems have been reported by the public or others agencies, and waters identified by the state as impaired or threatened in a nonpoint assessment. *Id.*

Each state must establish a priority ranking for its "water quality limited" waters, taking into account the severity of the pollution and the uses to be made of such waters. 33 U.S.C. § 1313(d). Each state must then establish for these identified water quality limited waters the "total maximum daily load" ("TMDL"), which must be established at a level necessary to implement the applicable water quality standards. *Id.*

The state must submit to the EPA Administrator the list of water quality limited waterbodies and TMDLs for these waterbodies. 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7(d)(1). This list must be provided along with documentation to support the State's determination to list or not to list waters as water quality limited, including a description of the methodology used to develop the list, a description of the data and information used to identify waters, and a rationale for any decision to not use any existing and readily available data and information. 40 C.F.R. § 130.7(b)(6). EPA must either approve or disapprove the list and TMDLs within 30 days. 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7(d)(2). If EPA disapproves, EPA must identify the water quality limited waters in the state and establish TMDLs as determined to be necessary to implement the applicable water quality standards. *Id.*

Each state must prepare and submit biennially to EPA a water quality report in accordance with Section 305(b) of the CWA. 33 U.S.C. § 1315(b); 40 C.F.R. § 130.8(a). Each 305(b) report must include a description of the water quality of all waters of the state, an estimate of the extent to which the quality of waters provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allows recreational activities in and on the water, and a description of the nature and the extent of nonpoint source pollution and recommendations to programs needed to control each category of nonpoint sources. 40 C.F.R. § 130.8(b).

## **The Recognized Importance of Natural Wild Rice in Minnesota**

Wild rice is a North American plant whose range is centered in the western Great Lakes region. The Minnesota Department of Natural Resources ("DNR") has recognized that no other native Minnesota plant approaches the level of cultural, ecological, and economic values embodied by natural wild rice. Minnesota has historically harbored more acres of wild rice than any other state, and its importance as a center of wild rice abundance has increased as wild rice acreage has declined elsewhere.

Wild rice has been harvested as a source of food in the Great Lakes region for thousands of years. The Anishinaabe have a cultural and spiritual connection to wild rice (also called Manoomin). Manoomin is the "food that grows on water," whose presence fulfilled the prophecies foretold in the story of the Anishinaabe's migration from the east. Manoomin is viewed as a gift given to the Anishinaabe from the Creator, and has historically been a centerpiece of nutrition and culture for the Anishinaabe people.

Wild rice has significant value to wildlife species. Research has documented that wild rice provides food and shelter for many fish and wildlife species, and that it is one of the most important foods for waterfowl in North America. Indeed, within its core range, there may be no food more important to waterfowl, as it is heavily consumed by mallards, blue-winged teal, ring-necked ducks, wood ducks, and other species. Wild rice also benefits breeding waterfowl, as it provides roosting and loafing areas to adults and essential brood cover for the young. Thus, wild rice lakes and streams are breeding and nesting areas for many species.

Wild rice also provides additional ecological values. Wild rice is an indicator of overall ecological health, as the lakes and streams where it occurs in abundance support highly diverse and abundant biological communities. The presence of wild rice also helps protect shorelines and provides important habitat for fish. Dense stands of wild rice also stabilize loose soils and forms natural windbreaks that can limit the mixing of soil nutrients into the water column. In addition, wild rice provides important economic benefits to local communities in the state.

## **Minnesota's Water Quality Standards for Wild Rice Waters**

The Minnesota Pollution Control Agency ("MPCA") has developed specific water quality standards for Class 4 waters of the state (agriculture and wildlife). MN Rule 7050.0224. MPCA has determined that these water quality standards are necessary for the agriculture and wildlife designated public uses and benefits. *Id.*, subpart 1. Wild rice is listed as an aquatic plant resource that is found in certain waters of the state, and it is recognized that the harvest and use of grains from this plant serve as a food source for wildlife and humans. *Id.* "In recognition of the ecological importance of this resource, and in conjunction with Minnesota Indian tribes, selected wild rice waters have been specifically identified [WR] and listed in part 7050.0470, subpart 1." *Id.* "The quality of these waters and the aquatic habitat necessary to support the propagation and maintenance of wild rice plant species must not be materially impaired or degraded." *Id.* More specifically, MPCA has developed a sulfate standard of 10 mg/L, which is applicable to water used for the production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels. *Id.*, subpart 2.

The 10 mg/L sulfate standard has been in existence since its adoption in 1973. The standard was in large part based upon field observations and water chemistry correlations made by Dr. John B. Moyle, a biologist with the the former Minnesota Department of Conservation. Dr. Moyle concluded that large stands of wild rice do not occur in waters having a sulfate concentration of greater than 10 mg/L, and that wild rice is generally absent from waters with more than 50 mg/L.

MPCA has designated classifications for surface waters in major drainage basins, and specifically identified a number of waterbodies as "wild rice waters," including: the St. Louis River, Artichoke Lake, Bluebill Lake, Breda Lake, Cabin Lake, Caribou Lake, Christine Lake, Fourmile Lake, Hay Lake, Lieuna Lake, Long Lake, Marsh Lake, Moore Lake, Northern Light Lake, Papoose Lake, Rice Lake, Round Island Lake, Round Lake, Seven Beaver Lake, Stone Lake, Skibo Lake, Swamp River, and White Pine Lake. MN Rule 7050.0470. Moreover, all waterbodies of the state that are not listed in part 7050.0470 are classified as Class 2B, 3C, 4A, 4B, 5 and 6 waters. MN Rule 7050.0430.

As stated by MPCA, the 10 mg/L sulfate standard was not intended to apply only to the wild rice waters that were specifically listed in MN Rule 7050.0470. Rather, this numeric standard was intended to have statewide applicability to all waters used for the production of wild rice.

## **The Known Wild Rice Producing Waters Within Minnesota**

MPCA and DNR have known for years that the waterbodies supporting wild rice in the state far exceed the list of waters that are identified in the Minnesota Rules. For instance, in 2008, DNR prepared a wild rice study for the Minnesota Legislature, which consolidated and updated existing wild rice inventory information. *See Exhibit A, provided herewith.* DNR's initial assessment found over 700 lakes in 31 counties totaling 1.5 million basin acres contained approximately 61,000 acres of natural wild rice. Ex. A, p. 51. DNR then reviewed additional inventory work from other agencies, treaty, and Tribal authorities to consolidate and add to the initial dataset which was sent out for review. *Id.* A final dataset resulted in a DNR inventory that found stands of natural wild rice were present or occupied in recent history on 1,292 lakes or river/stream segments in Minnesota. *Id.*, p. 52. Of these 1,292 locations, 777 have information on natural wild rice coverage, which totals approximately 64,328 acres. *Id.*; *see also* Ex. A at pp. 53-83 (listing the wild rice waters).

The 1854 Treaty Authority also maintains a list of wild rice waters within the 1854 Ceded Territory that lists hundreds of rivers, streams and lakes, including the St. Louis River, Partridge River, Embarrass River, and Birch Lake. *See Exhibit B.*

A coalition of federal, state, and Tribal resource managers and other wild rice stakeholders have also compiled a list of 350 Significant Wild Rice Waters in Minnesota. *See Exhibit C; see also Exhibit D (DNR General Distribution of Wild Rice).*

The greatest concentration of natural rice locations is in St. Louis County (8,939 acres), Itasca County (8,448 acres), and Cass County (8,323 acres). Ex. A, p. 52. Within St. Louis County, the locations include the St. Louis River, the Embarrass River, the Cloquet River, Birch Lake, and well over 100 additional rivers, streams and lakes. *See* Ex. A, pp. 78-81; Ex. B.

As stated above, the 10 mg/L sulfate standard was not intended to apply only to the wild rice waters that were specifically listed in Minn. R. ch. 7050.0470, but rather was intended to apply to all waters in the state used for the production of wild rice.

## **The Current Status of Minnesota's Wild Rice Waters**

MPCA has known for years that “[t]here is evidence demonstrating a decline in the number and aerial distribution of natural wild rice stands throughout the State of Minnesota.” *See* <http://www.oah.state.mn.us/water/mpca.htm> (*In the Matter of Proposed Amendments to Rules Governing Water Quality Standards, Minn. R. ch. 7050, and Proposed New Rules Governing Water Quality Standards, Standard Implementation, and Nondegradation Standards for Great Lakes Initiate Pollutants in the Lake Superior Basin, Minn. R. ch. 7052*).

Moreover, DNR and MPCA have known for years that mining and industrial activities can adversely affect stands of natural wild rice. Adverse affects can result from the pumping and dewatering of sites, which increases downstream flows and results in

depressions in groundwater in surrounding areas. Ex. A, p. 25. Additional adverse effects can result from the release of chemicals such as sulfate from mine pits and tailings, which can negatively affect wild rice in the area. *Id.* More specifically, “[s]eepages from tailings can exceed the state established water quality criteria of 10 mg/L for wild rice waters. For example, sulfate has been measured at 1,000 mg/L in these seepages.” *Id.*

As explained to MPCA in a letter from the Fond du Lac Reservation,

There is substantial agreement among the northeastern Minnesota tribes and intertribal agencies that wild rice waters around these mine sites have already been impacted by historic and current mining activities. And there is substantial water quality data, from various independent sources, clearly showing sulfate concentrations that are orders of magnitude higher than natural background concentrations. Both the Minnesota Department of Natural Resources (DNR) and your agency have data from numerous resource studies and conditional monitoring reports going back decades, which verify that mine process waters and tailings basin seepage contribute high concentrations of sulfate and other dissolved ions to the receiving lakes, streams and wetlands.

Exhibit E.

In the Draft Environmental Impact Statement (“DEIS”) for the proposed NorthMet mine project, exceedances of the sulfate standard for wild rice producing waters were documented in the Partridge River, Embarrass River, Colby Lake, Embarrass Lake, Cedar Island Lake, Esquagama Lake, and the St. Louis River. *See* DEIS at 4.1-42, 4.1-121-122, 4.1-188-195. At least some of these existing exceedances are due to mining related activities. *See* DEIS at 4.1-191 (stating that sulfate concentrations increase in the Middle Embarrass River to an average of 36.1 mg/L, and that this increase in sulfate concentrations is primarily attributable to the Pit 5NW overflow and seepage from the LTV tailings basin).

The DEIS states that sulfate concentrations in the St. Louis River range from a low of 3 mg/L to a high of 106 mg/L. DEIS at 4.1-194. As stated in the DEIS, “[i]t has long been known that sulfate concentrations in the St. Louis River are sometimes elevated due, most likely, to mining related sulfate releases.” *Id.* “Sulfate concentrations in waters draining non-mining impacted watersheds ranged from 3.4 to 5.8 mg/L, whereas sulfate concentrations in tributaries from mining impacted watersheds ranged from 22 to 127 mg/L. *Id.*

In sum, MPCA is aware, and has been aware for years, that there are numerous waterbodies in the state where the sulfate concentrations have exceeded and continue to exceed the sulfate standard for wild rice waters. None of these waters, however, are included on the state’s 303(d) list as water quality impaired for sulfates even though these waters fail to meet the sulfate standard.

## **MPCA's Failure to Include Any of Minnesota's Wild Rice Waters as Water Quality Limited**

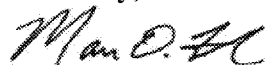
A fundamental flaw in Minnesota's draft 2012 list of water quality limited waterbodies is MPCA's failure to identify any wild rice producing waters that are failing to meet the 10 mg/L sulfate standard. MPCA is aware that there are hundreds of waterbodies in the state that support wild rice, that many of the wild rice producing waters do not meet the sulfate standard for these waters, and that the failure to meet the water quality standard for these waters has resulted in a decline in wild rice in these waters. MPCA is therefore obligated by the CWA to list these waterbodies as water quality impaired, and to timely develop TMDLs in order to get these waterbodies back into compliance with the mandatory standards.

MPCA's failure to include wild rice producing waters that are in nonattainment with the state's 10 mg/L sulfate standard within its list of water quality impaired waterbodies results in a 303(d) list that does not comply with the CWA. *See* 33 U.S.C. § 1313(d) (states obligated to identify all waters within its boundaries for which pollution controls are not stringent enough to implement any water quality standard applicable to such waters); 40 C.F.R. § 130.7(b)(1) (same); 40 C.F.R. § 130.7(b)(5) (states must assemble and evaluate all existing and readily available water quality related data and information in order to identify all water quality limited segments). Moreover, the lack of a legally adequate 303(d) list means that MPCA is further failing to prepare legally required TMDLs for all waterbodies in the state that are impaired. 33 U.S.C. § 1313(d). In addition, MPCA's long-standing failure to systematically monitor these wild rice producing waters further violates the CWA. *See* 40 C.F.R. § 130.4 (requiring states to establish appropriate monitoring methods and procedures necessary to compile and analyze data on the quality of waters of the United States).

## **Conclusion**

The Center is hopeful that MPCA will recognize the need to promptly add a number of wild rice producing waters to its 303(d) list, which are known to be impaired and in noncompliance with the state's 10 mg/L sulfate standard, in order to submit to EPA a list that is in compliance with the CWA. If you have questions, please feel free to contact me at the number below. Thank you for your consideration.

Sincerely,



Marc Fink

Senior Attorney, Public Lands Forest Director  
Center for Biological Diversity  
209 East 7<sup>th</sup> St.  
Duluth, Minnesota 55805  
218-464-0539  
mfink@biologicaldiversity.org